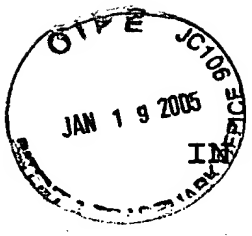
AF/1771



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

ATTY.'S DOCKET: JOHANSEN =3

In re Application of:	)	Art Unit: 1771
	)	
Fridtjov JOHANSEN	)	Examiner: J. Pierce
	)	
Appln. No.: 09/746,560	)	Washington, D.C.
	)	
Date Filed: December 26, 2000	)	Confirmation No. 1686
	)	
For: ENVIRONMENTALLY FRIENDLY INSULATING MATERIAL	)	January 19, 2005

Communication

Honorable Commissioner for Patents
U.S. Patent and Trademark Office
Customer Service Window
Randolph Building, Mail Stop __
401 Dulany Street
Alexandria, VA 22314

Sir:

Applicant filed a Brief on Appeal on June 7, 2004. Since such filing, applicant has received an Office Action in the corresponding Russian application. Applicant submits herewith (1) a translation of such Russian Office Action, and (2) English language abstracts of the two cited references, namely SU 1158644A and RU 2083524C1. Accordingly, applicant respectfully requests that these be made of record and considered in the present application.

Respectfully submitted,

BROWDY AND NEIMARK, P.L.L.C.
Attorneys for Applicant(s)

By _____
Sheridan Neimark
Registration No. 20,520

:jaa
G:\BN\O\Onsa\Johansen3\pto\Communication IDS 19ja05.doc

СОЮЗ СОВЕТСКИХ СОЦИАЛИСТИЧЕСКИХ РЕСПУБЛИК

(19) SU (11) 1158644 A

4(51) D 21 J 1/00, D 21 H 5/26

ГОСУДАРСТВЕННЫЙ КОМИТЕТ СССР ПО ДЕЛАМ ИЗОБРЕТЕНИЙ И ОТКРЫТИЙ

ОПИСАНИЕ ИЗОБРЕТЕНИЯ

К АВТОРСКОМУ СВИДЕТЕЛЬСТВУ

(21) 3715994/29-12
(22) 29.03.84
(46) 30.05.85. Бюл. № 20
(72) А.Е.Гущин, Н.И.Сидоров, В.И.Крупин и Л.Н.Лаптев
(71) Всесоюзное ордена Трудового Красного Знамени научно-производственное объединение целлюлозно-бумажной промышленности
(53) 676.73(088.8)
(56) Авторское свидетельство СССР № 560942, кл.D 21 D 1/20, 1976.

(54)(57) 1.СПОСОБ ПОЛУЧЕНИЯ ФИБРЫ, включающий размол целлюлозных волокон, диспергирование полученной массы, формование из нее волокнистого слоя, обработку сформованного слоя химическим реагентом с последующим прессованием, аэрацией, выщелачиванием, сушкой и каландрированием, о т л и ч а ю щ и й с я тем, что, с целью упрощения и снижения энергоемкости процесса при одновременном повышении качества фибры, размол целлюлозных волокон, диспергирование полученной массы и формование волокнистого слоя осуществляют в воздушной среде, причем размол ведут при влажности 3-24% и концентрации 5-20 кг/м^3 до получения массы с удельной поверхностью, равной 250-520 м^2/кг, формование ведут при степени турбулентности 5-20%, а обработку химическим реагентом - непосредственно после формования волокнистого слоя.

2.Способ по п.1, о т л и ч а ю щ и й с я тем, что размол ведут на дисковой мельнице.

(19) SU (11) 1158644 A

1984SU-3715994 19840329

IPC s :

D21H-005/26 D21J-001/00

Abstract :

SU1158644 A

Simplified production of fibres from cellulosic material combined with reduced power intake and enhanced fibres are achieved by beating, dispersion of the slurry and forming a fibrous layer in air stream. The beating is carried out with a moisture content of 3-24% and with a concentration of 5-20 kg/m3 to obtain a pulp with a specific surface of 250-520 m3/kg. The layer forming takes place with a turbulence degree of 5-20%, while the treatment with the chemical reagent follows directly after the forming of the fibrous layer. The refining is controlled by the disc grinder.

The cotton cellulose with a moisture of 24% is fed from the beater to the hammer mill handling fibres concentration of 5 kg/m3 at a peripheral speed of 85 m/sec. The mean fibres length is then 1.9 mm, and the specific surface is 520 m2/kg which is entrained by a fan so that the concentration of the suspension is then 220 g/m3. The flocs of fibres are broken up, and the precipitation from the meshes onto the forming wire ensures uniformity with turbulence level of 16%. Two layers of fibres are then combined for treatment in an impregnation bath of ZnCl2 with a concentration of 72%. The solution is at 30 deg. C, and the treatment lasts 20 sec. The two combined layers are pressed and aerated during 10 min. at 30 deg. C before leaching with ZnCl2 followed by a water rinse.

ADVANTAGE - The fibrous layer formation increases the density and resistance to exfoliation as well as the yield limit in the direction of machine forming, while the process is simplified. Bul.20/30.5.85 (6pp Dwg.No 0/0)

Manual Codes :

CPI: F05-A04C F05-A07

Update Basic :

1985-50

Search statement 2

Query/Command : ru2083524/pn

**** SS 2: Results 1**

Search statement 3

Query/Command : prt max %pset%

1 / 1 DWPI - ©Thomson Derwent - image

Sec. Acc. CPI :

C1998-032747

Title :

Raw materials mixture for preparation of heat insulation - contains borax, boric acid, crushed waste paper and cardboard plus specified wastes having increased tearing strength

(19) **RU** (11) **2083524** (13) **C1**

(51) 6 C04B30/02, C04B30/02, C04B18:24, C04B111:20

РОССИЙСКОЕ АГЕНТСТВО
ПО ПАТЕНТАМ И ТОВАРНЫМ ЗНАКАМ

(12) ОПИСАНИЕ ИЗОБРЕТЕНИЯ

к патенту Российской Федерации

(14) Дата публикации: **1997.07.10**

(21) Регистрационный номер заявки: **95116567/03**

(22) Дата подачи заявки: **1995.09.25**

(46) Дата публикации формулы изобретения: **1997.07.10**

(56) Аналоги изобретения: **1. Авторское свидетельство СССР N 1641786, кл. C 04 B 26/20, 1991. 2. ТУ 5761-028-02956140-94. Вата целлюлозная "Эковата", 1994.**

(71) Имя заявителя: **Данковцев Вячеслав Тихонович; Окунев Юрий Петрович**

(72) Имя изобретателя: **Данковцев Вячеслав Тихонович; Окунев Юрий Петрович**

(73) Имя патентообладателя: **Данковцев Вячеслав Тихонович; Окунев Юрий Петрович**

(54) СЫРЬЕВАЯ СМЕСЬ "ЭКОВАТА-2"

Использование: производство теплоизоляционных материалов, в частности изготовления покровного материала в строительной промышленности, а также для изготовления различных теплоизоляционных элементов для изоляции труб. Сущность: сырьевая смесь - "Эковата-2" включает мас.%: угарные отходы производства нетканых материалов, войлочных изделий и строительной пакли 20-30, измельченную картонно-бумажную макулатуру 50-60, борную кислоту 10, буру 10. При использовании сырьевой смеси "Эковата-2" обеспечивается снижение себестоимости производства теплоизоляционных материалов и расширяется область утилизации промышленных отходов. 1 ил., 1 табл.

Изобретение относится к производству теплоизоляционных материалов, а именно к сырьевой смеси для изготовления покрывного материала в строительной промышленности и различных теплоизоляционных элементов в виде скорлупы или матов для изоляции труб.

Известна сырьевая смесь [1] включающая гексатилентетрамин, вспученный перлит и отходы полиамидной ткани.

Недостатком такой смеси является то, что она обладает относительно высоким коэффициентом теплопроводности в пределах 0,08-0,15 Вт/(м°С).

Также известна сырьевая смесь, называемая эковатой [2] включающая измельченную картонно-бумажную макулатуру, борную кислоту и буру в следующем соотношении компонентов:

картонно-бумажная макулатура 80%

борная кислота 10%

бура 10%

Недостатком аналоговой сырьевой смеси является низкая прочность на разрыв изготовленных из нее теплоизоляционных материалов. К существенному недостатку следует отнести и то, что для производства эковаты используется только бумажная макулатура, и при этом, для ее измельчения

Derwent Classes :
L02
Patent Assignee :
(DANK/) DANKOVTSEV V T
Inventor(s) :
DANKOVTSEV VT; OKUNEV YU P
Nbr of Patents :
1
Nbr of Countries :
1
Patent Number :
RU2083524 C1 19970710 DW1998-09 C04B-030/02 3p *
AP: 1995RU-0116567 19950925
Priority Details :
1995RU-0116567 19950925
IPC s :
C04B-030/02 C04B-018:24 C04B-111:20
Abstract :
RU2083524 C
The raw materials composition, which is designated as Ekovata-2, is intended as a covering material in the building industry and as a heat insulating compsn. in the form of shells or mats for tubes. The raw materials composition contains (wt.%) borax 10, boric acid 10, crushed scrap cardboard and paper 50-60 and wastes from the preparation of non-woven materials, felt products and building fibre packing 20-30.
USE - The mixture is used in the preparation of heat insulating material for tubes.
ADVANTAGE - The tearing strength of the said raw materials compsn. is increased by a factor of 5-6, costs are reduced by 30% and industrial wastes are utilised. (Dwg.1/1)
Manual Codes :
CPI: L02-D15D
Update Basic :
1998-09

Search statement 3

Query/Command : file inpadoc

You are now connected to INPADOC
Covers 1968/1973 thru weekly updates (2005-02)
For information on content, (..)INFO INPD.

Search statement 1

Query/Command : fam su1158644/pn

1 Patent Groups
** SS 1: Results 1

Federal Office
for Intellectual Property,
Patents and Trade Marks

12 October 2004

**FEDERAL INSTITUTE
OF INDUSTRIAL PROPERTY**

(74) ARS Patent address

FIIP address

Your No

(21) Our No. 2002120454/03(021202)

NOTIFICATION
of results of patentability assessment

☒ invention ☐ industrial design

(21) Application No. 2002120454/03(021202) Filed on 5 July 2001

COMMENTS

1. In the course of examination of the application conducted by the Department of Mining and Construction the following has been established.

2. There are claimed: a method for production of insulating material buildings according to claims 1-7; use of collected scrap clothes or fabric remnants according to claim 9; use of fabric remnants from the furniture industry according to claim 10; and an environmentally friendly insulating material for insulating etc. according to claims 11-16.

3. The Applicant demands to assign priority dates of 23 December 1999 and of 22 November 2000, said dates corresponding to dates of filing first applications Nos. 19996457 and 20005915 with the Norwegian Patent Office.

4. The claimed method is characterized in claim 1 as follows:
"A method for production of insulating material for buildings,
characterized in that
- recycled clothes and/or fabric remnants are employed as a raw material,
- the raw material is shredded into a homogeneous fibrous shoddy,
- the homogeneous shoddy is admixed with flax fibres and polyester fibres into a homogeneous fibrous mixture,
- the homogeneous fibrous mixture is aerated to form an aerated fibrous mixture,
- the aerated fibrous mixture is formed into the wanted shape, and finally
- the shape formed mixture is heat treated until the polyester fibres melt and bond the remaining fibres together to form the insulation material".

5. A method for production of insulating material for buildings (described in US 5723209 A, B325/06, 03.03.1998, 4 pp. /1/) can be selected as the closest prior art for the claimed method.

6. The prior art method provides for an employment of fabric remnants as a raw material, shredding the raw material into a homogeneous fibrous shoddy, admixing the homogeneous shoddy with polyester fibres into a homogeneous fibrous mixture, forming the fibrous mixture into the wanted shape, and heat treating the mixture until the polyester fibres melt and bond the remaining fibres together to form the insulation material.

7. The method of claim 1 differs form the prior art one in that flax fibres are added to the homogeneous shoddy, and in that the homogeneous fibrous mixture is aerated to form an aerated fibrous mixture, said mixture being employed for forming.

8. However, adding flax fibres in the course of production of insulating material with an aim of obtaining a strong material is known from DE 1960251 C1, D04H1/42, 7 August 1997, 4 pp. /2/).

9. Aerating of fibrous mixture to form an aerated fibrous mixture and feeding the aerated fibrous mixture for forming in the course of producing of insulating material are also known (SU 1158644 A, D21J1/00, 30 May 1985, column 1, lines 15-50 /3/ - see an attached copy).

10. In view of the above, the invention of claim 1 can be considered as based on an addition, to known means, of known parts by following known rules for attainment of a certain technical result, wherein a role of such addition in attaining such result has been already established. Inventions of such type are considered as non-satisfying an "inventive condition" (see item 19.5.3(3) of the Russian Rules for Drawing, Filing and Examination of Patent Applications, hereinbelow "the Rules").

11. Correspondingly, in accordance with provisions of item 19.5.4(1) of the Rules, the Applicant is invited to express an opinion on expediency of further examination of the application. In case such expediency will be confirmed, the Applicant shall submit an amended set of claims.

12. When amending the set of claims, the following shall be taken into consideration.

13. A use of collected used clothes as a raw material (according to claim 2) is evidently follows from that said clothes are made of fabric.

14. A feature disclosed in claim 3 is known from /1/.

15. Features disclosed in claim 4 are essentially embodiments of commonly known steps of shredding and sorting of waste as a part of a recycling process.

16. As for claim 5, a proposed content of polyester fibres and a fire retardant agent in the shoddy is known form /1/, while a proposed content of flax fibres is covered by /2/.

17. As for claim 6, a combined use of fibres obtained from remnants of fabric, cardboard and paper manufacturing for production of an insulating materials is also known (RU 2083521 C1; C04B30/02, page 2, paragraphs 2-5, a Table /4/ - see an attached copy).

18. Features disclosed in claim 7 are known from /1/.

19. Regarding claim 8. According to Article 4, paragraph 2 of the current version of Patent Law of the Russian Federation, "use"-type inventions correspond to a use of a known substances or devices for a new purpose. Use of collected scrap clothes as a raw material for

forming an insulation mattress follows from information supplied in /1/ regarding a use of a fabric waste as a raw material for producing an insulating material and from a commonly known fact that clothes are made using fabrics. Therefore, no new use is proposed in claim 8.

20. Comment to claim 9 is similar to that regarding claim 8.

21. As for claim 10, the examiner's comment is similar to that regarding claim 8, with taking into account that use of remnants from furniture industry is also known from /1/.

22. An invention disclosed in claim 11 is characterized as follows:
"An environmentally friendly insulating material for insulating buildings etc., which does not contain substances which are harmful or irritating to people and which does not release harmful substances/dust into the buildings' indoor air,
characterized in that the insulating material consists of fabric remnants which are shredded into a shoddy and then mixed with flax fibres and a fibrous polyester with a low melting point to form a homogeneous mass, which is then moulded into the desired shape and heat-treated until the polyester fibres melt, bonding the fabric and flax fibres together".

23. The insulating material described in /1/ complies with requirements worked out for materials employed for buildings construction, which means said material is environmentally friendly and harmless. Said material consists of fabric remnants which are shredded into a shoddy and then mixed with fibrous polyester with a low melting point to form a homogeneous mass, which is then moulded into the desired shape and heat-treated until the polyester fibres melt, bonding the fabric and flax fibres together.

24. The material of claim 11 differs from that described in /1/ in that flax fibres are also added to the homogeneous shoddy.

25. However, adding flax fibres in the course of production of insulating material with an aim of obtaining a strong material is known from /2/.

26. In view of the above, the invention of claim 11 can be considered as based on an addition, to known means, of known parts by following known rules for attainment of a certain technical result, wherein a role of such addition in attaining such result has been already established. Inventions of such type are considered as non-satisfying an "inventive condition" (see item 19.5.3(3) of the Rules).

27. Correspondingly, in accordance with provisions of item 19.5.4(1) of the Rules, the Applicant is invited to express an opinion on expediency of further examination of the application. In case such expediency will be confirmed, the Applicant shall submit an amended set of claims.

28. When amending the set of claims, the following shall be taken into consideration.

29. Features of claims 12, 13 are known from /1/.

30. Features of claim 14 are known from /2/.

31. Features of claim 15 are known from /4/.

32. As for claim 16, thickness of the insulating material coincides with that indicated in /1/. Length and width of the material are selected depending on dimensions of an object to be insulated.

33. In accordance with Article 8, paragraph 21 of the Patent Law of the Russian Federation, the Applicant is invited to submit a response to comments and arguments presented in the instant Notification. The Applicant's comments will be taken into

consideration when issuing a decision based on results of the substantive examination, on condition that said comments will be submitted not later than 6 months counted from the issuing date of the instant Notification. In order to speed up the prosecution of the instant application the Applicant may present the response (or an acceptance of the Department's position) before a termination of the above-indicated period.

34. In case of submittance of the amended set of claims the Applicant shall indicate one priority date (out of two possible dates) separately for each amended claim.

35. The Applicant's attention is specially drawn to that any added materials will be found changing the essence of the claimed invention in case they will comprise any features to be included into amended claims, if said features were not contained in the application materials as originally filed (see item 20(3) of the Rules).

An attachment: on 10 sheets, in a single copy.

Deputy Department Chief V. A. Matveyev